

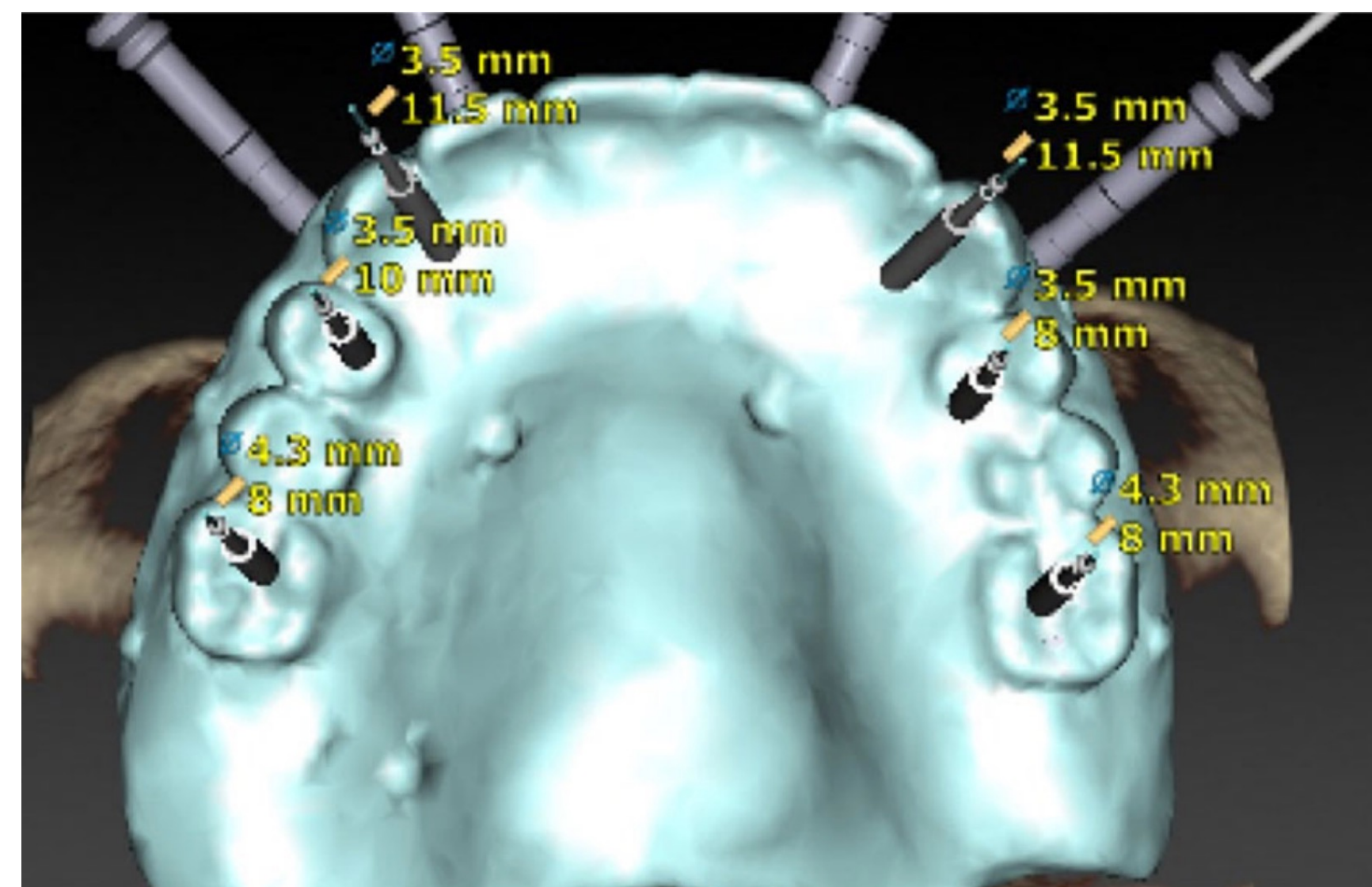
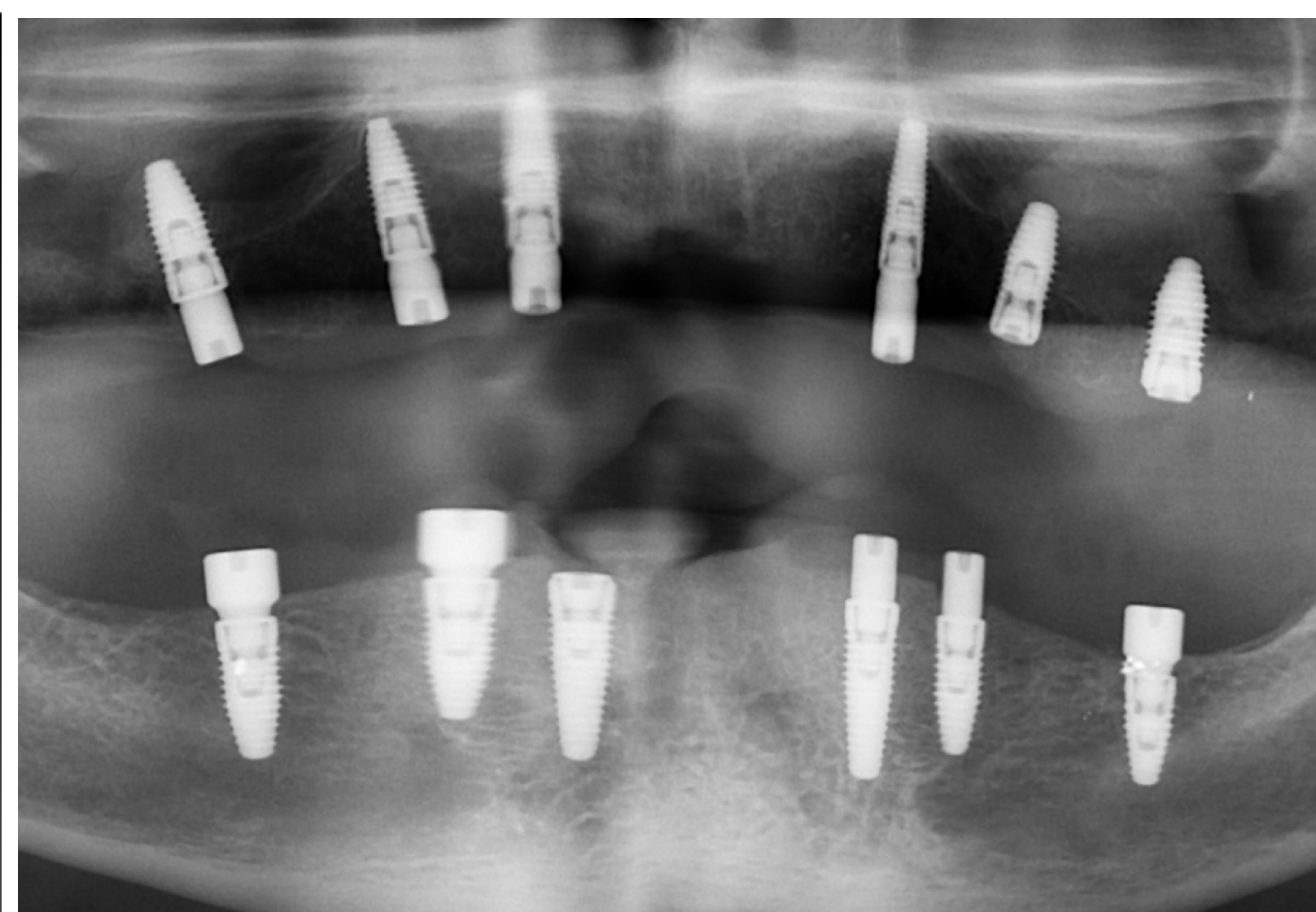
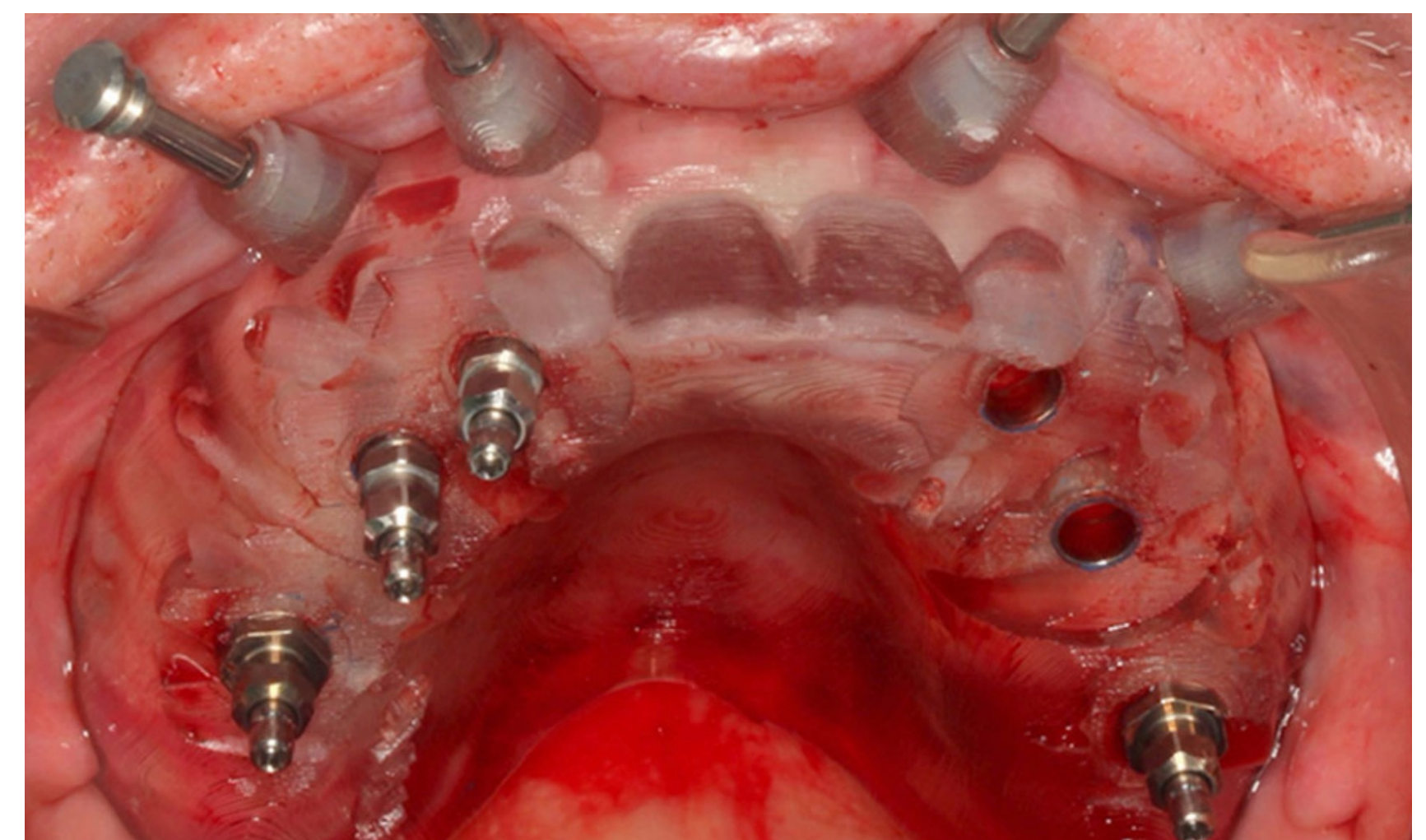
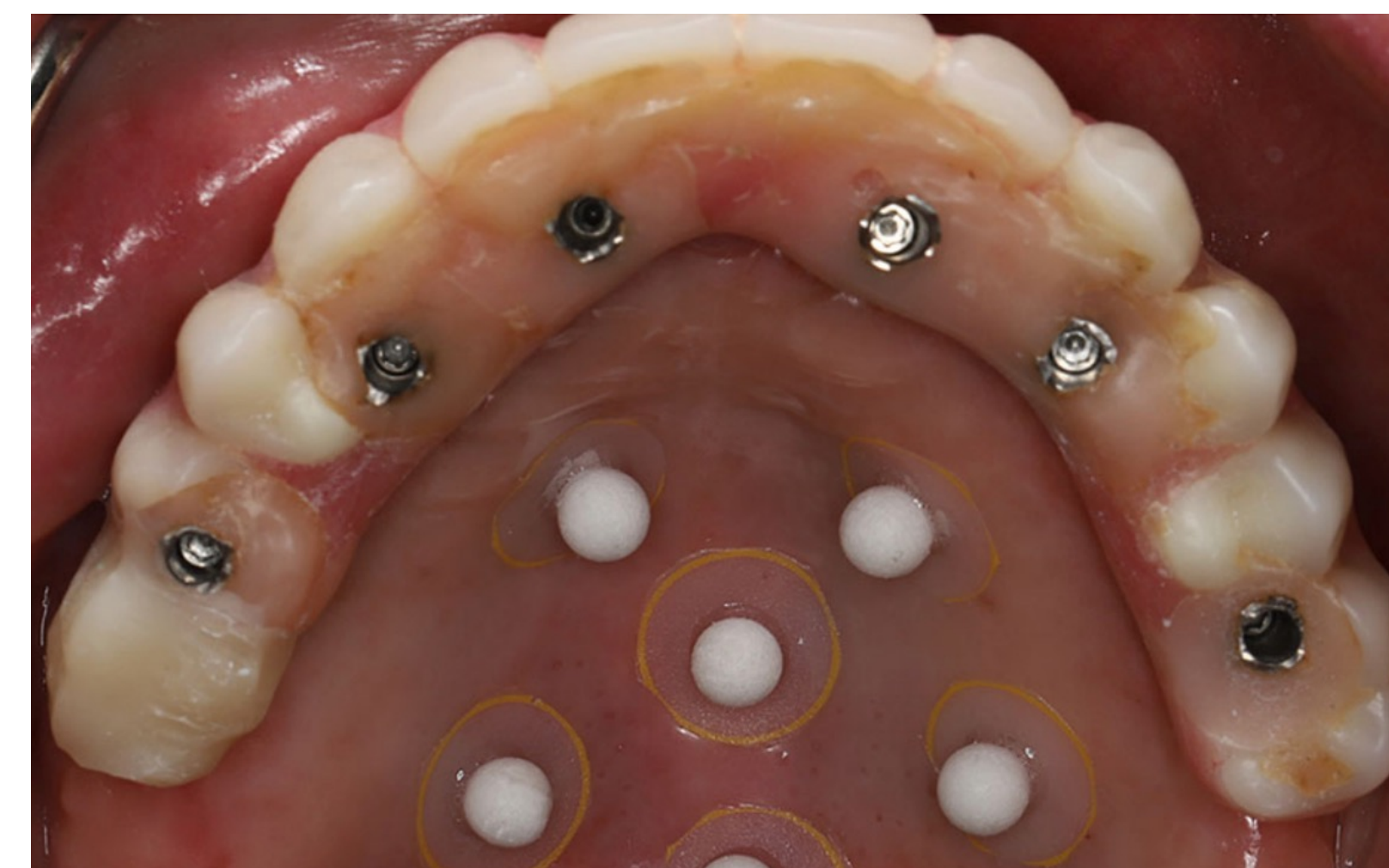
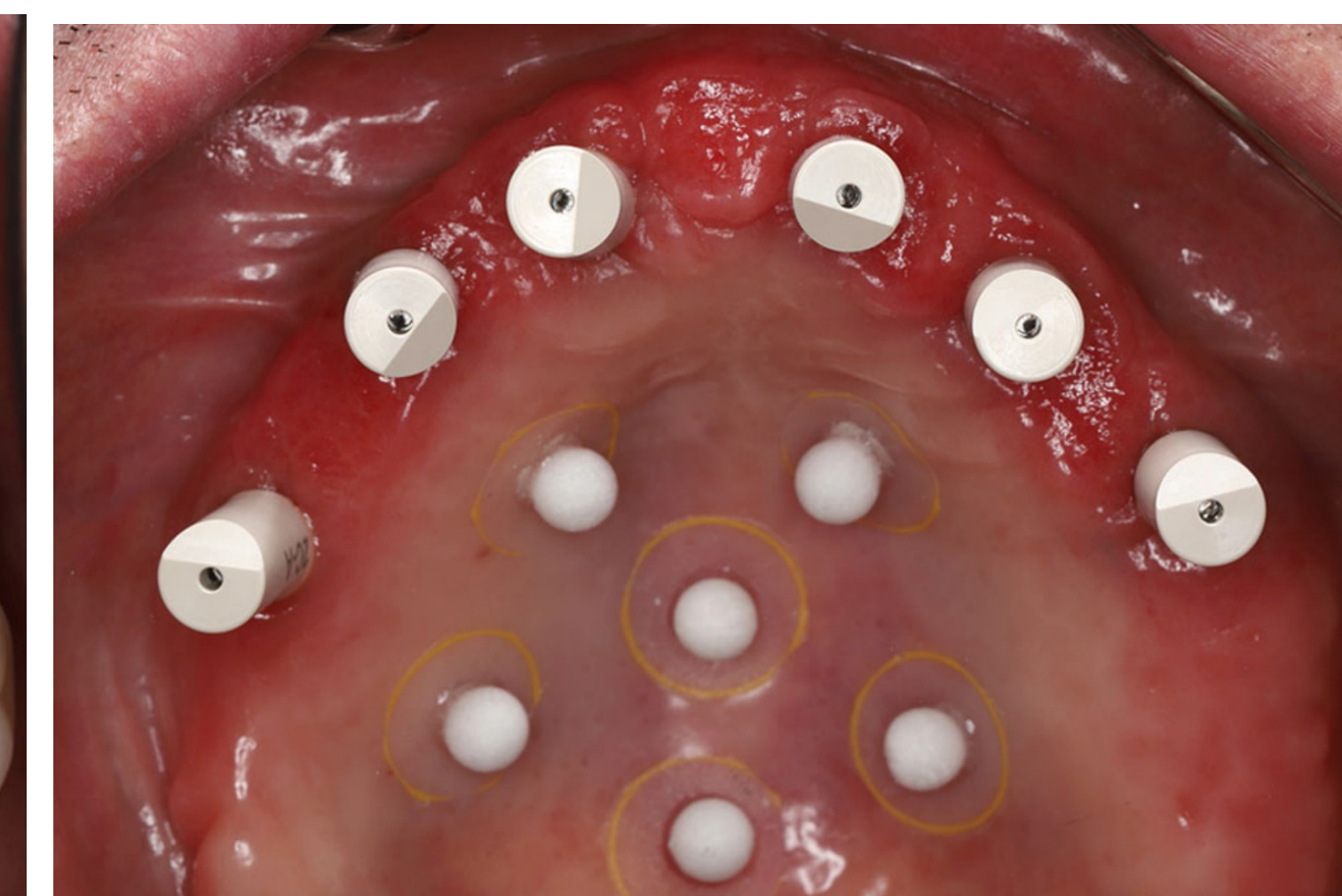
Double Digital Scanning Technique for Full-Arch Implant Rehabilitation

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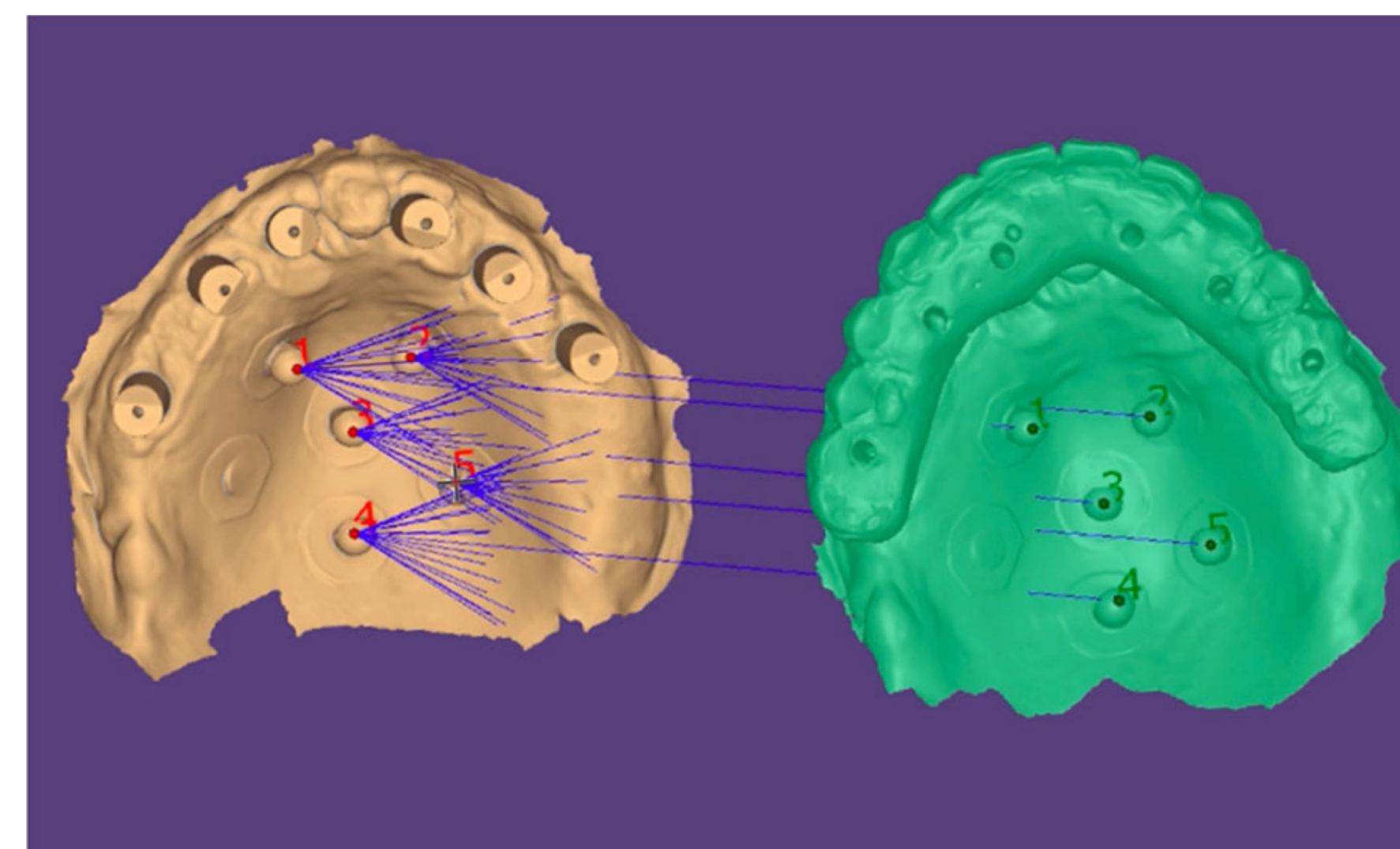
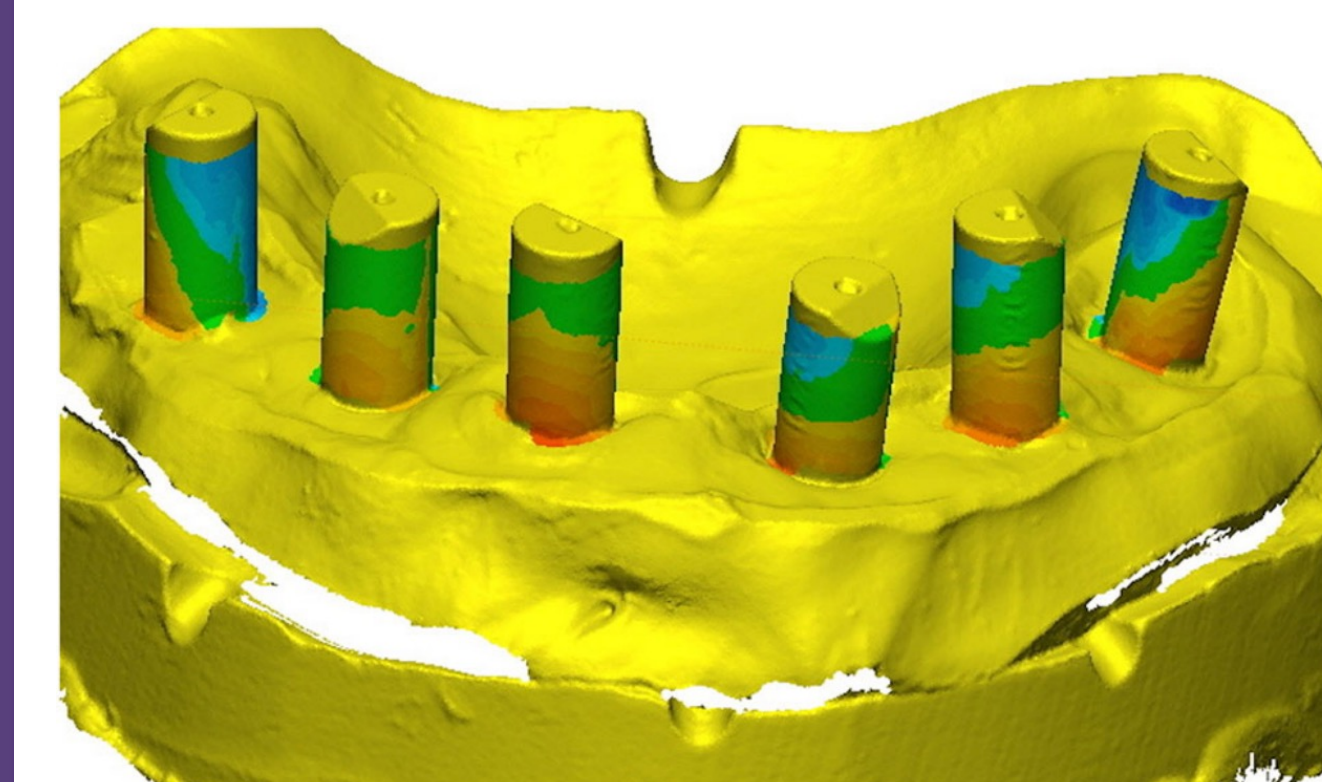
Objectives

to illustrate a proof-of-concept protocol with the double digital scanning (DDS) technique for complete digital workflow in double full-arch implant rehabilitation.



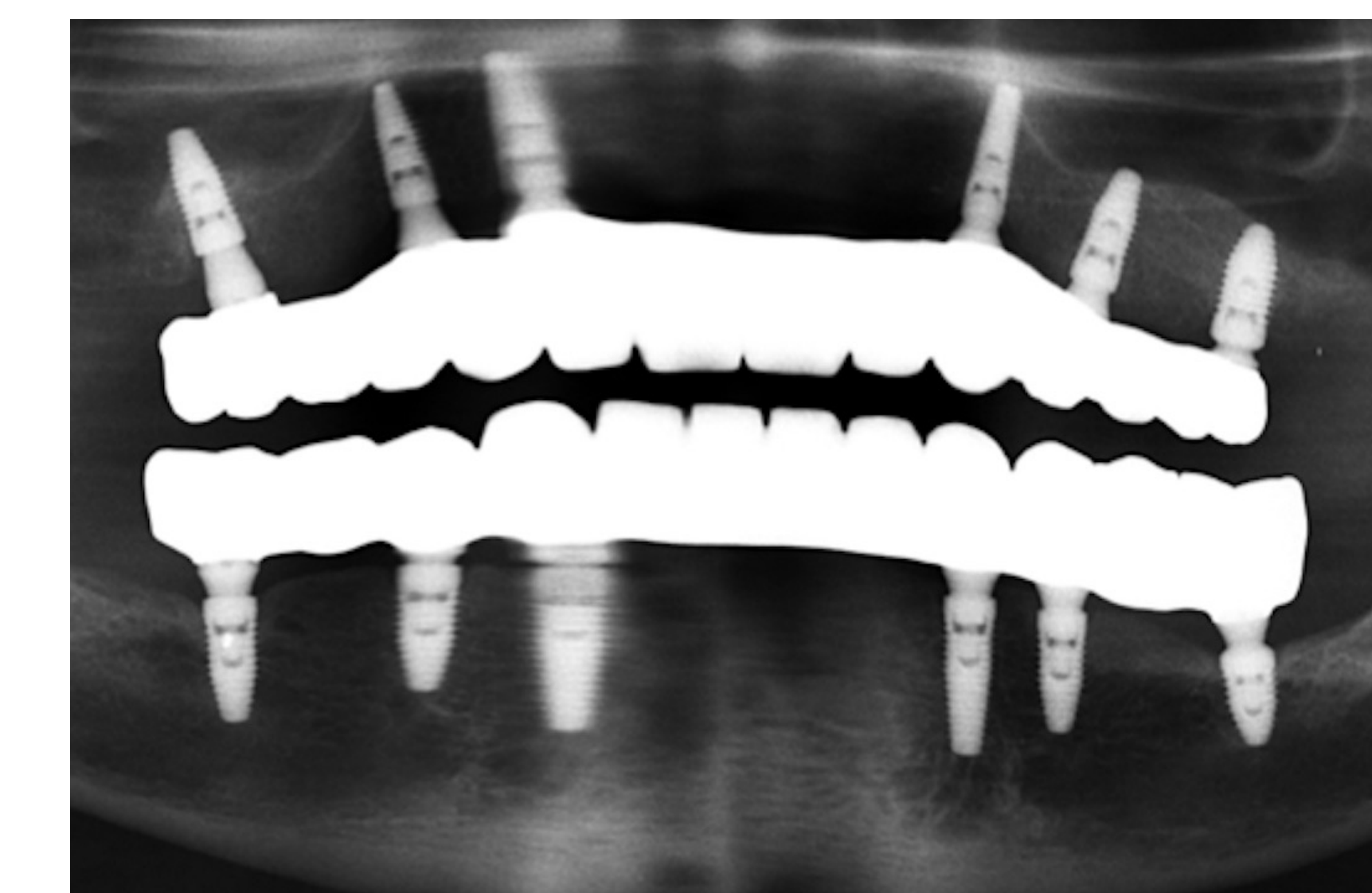
Material and methods

A patient with an edentulous maxilla was treated with the All-on-6 fixed implant rehabilitation. The Double Digital Scanning (DDS) technique was implemented to facilitate the accurate superimposition of STL files from complete-arch digital scans for a complete digital workflow in the fabrication of the prosthesis prototype.



Results

The STL files from digital scans are superimposed using self-adhesive radiopaque fiducial markers. As long as the keratinized mucosa is air dried prior to sticker adhesion, the retentive sticker surface sticks strongly to it. The CAD-CAM production of the prosthetic prototype is enabled by the exact superimposition of the STL files. The prosthesis prototype is clinically examined, changed as needed, and then re-scanned for machining of the final prosthesis.



Conclusion

The presented DDS technique facilitates accurate superimposition of STL files from complete-arch digital scans and aids in the transfer of all patient-relevant information from the existing interim prosthesis to virtually articulate the edentulous arch.

The DDS technique simplifies the clinical procedures and enables the integration of the complete digital workflow without the need to manufacture and to articulate physical casts after the digital scan.